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| 09/782,539 | 02/13/2001 | Daniele Brotto | TN-1379A | 3388 |

7590 07/03/2002
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EXAMINER

TIBBITS, PIA FLORENCE

| | |
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| ART UNIT | PAPER NUMBER |
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2838

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,539

Applicant(s)

Brotto et al.

Examiner

Pia Tibbits

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 3, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-28 and 30-32 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-28 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

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DETAILED ACTION

This Office action is in answer to the reopening of the prosecution after the appeal brief filed January 3, 200, and the amendment filed May 3, 2002.

Response to Arguments

1. Applicant's arguments filed on May 3, 2002 have been fully considered but they are not persuasive in view of the rejections stated below.

a) Applicant canceled claim 29 and incorporated its limitations in independent claim 25. Claims 25-28 and 30-32 are pending.

b) In response to Applicant's argument stated on page 6, that the Wagner reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies, i.e., that Wagner's performance records are not downloaded into a reader apparatus **for later analysis**; firstly, the applicant's reader is described in the specification on page 8 as conducting "**a hand-shaking routine...to induce...transmitting the information stored in memory**" to the computer. Further, "Reader 50 then **receives** the information, **stores** it into memory **and/or sends it to computer** 53". Thus it is not disclosed that the reader **analyzes** the information, it is disclosed that the reader **stores** or **transmits** the information to a computer. Secondly, Wagner specifically discloses **intool software** embedded on a **processor** within the tool which also **communicates with remote software**, i.e., a **computer**. The remote computer could be considered to be a reader since it could analyze and optimize a process by using information stored in memory for feedback.

c) Claim 25 (amended): recites downloading the stored information into a reader. The specification on page 8 describes the reader as conducting "**a hand-shaking routine...to induce...transmitting** the information stored in (the power tool's) memory to the computer", and

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describes that "the information from memory...may be downloaded by connecting the tool...to a reader...**and/or a computer**". Thus the applicant acknowledges that a computer could provide the functionality of a reader.

d) In response to Applicant's arguments on page 7, that "**there is no suggestion to modify Wagner's direct connection to a computer with a separate reader apparatus**", this feature is not recited in the applicant's amended claim 1, i.e., "**a computer with a separate reader apparatus**". Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 25-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wagner et al.**[hereinafter Wagner] [5903462].

Wagner discloses a computer-implemented method and apparatus for controlling a hand-held tool, and monitoring the operating parameters of the tool. The control is embodied in **intool software** embedded on a **processor** within the tool which also **communicates with remote software**, i.e., a **computer** (which is considered to be a reader).

An operator can run the tool, or through the interaction of both software, operate the tool from a remote location, analyze data from a **performance history recorded** by the tool, and select **various parameters**. There are disclosed two types of performance records: one which will contain

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torque, angle and time information on fasteners as they were tightened or loosened; another type of performance record will describe events that occurred to the hand held tool such as **when the tool powered up**, or when a **temperature** fault occurred.

Repeatedly, the processor obtains an indication of the integrity of the computer code stored in the read only memory of the microcontroller and data stored in the nonvolatile, writable memory by performing a checksum on the memory . If a checksum test fails, the processor puts the tool into a self test fail state, which may only be exited upon cycling power to the tool . Otherwise, the processor returns the tool to an idling state. Unused memory is reset with single-byte opcodes. The main loop consists of three steps. In fig.4 a watchdog timer is enabled the first time it is written to and subsequent writes clear its counter 416. The watchdog's counter must be cleared within a particular period of time, 8.192 milliseconds in this embodiment, of its last clearing or the microcontroller will reset. The next step is to process any received command bytes 418. After the processing, a checksum is performed on the microcontroller's ROM and the **EEPROMs** to verify the integrity of the program code 420. Wagner also discloses that torque transducers, responsive to the force being applied to the fastener interface mechanism, and **temperature** transducers are located within the housing to monitor among others the motor temperature and the temperature of the power supply which may be a battery. The output of the torque and temperature transducers will be represented as digital values to the processor. Wagner does not disclose "use profile information" specifically, however it would have been obvious to one of ordinary skill in the art that it is an inherent function of Wagner's apparatus to provide use profile information since it analyzes data from a **performance history recorded** by the tool, and MPEP 2100 states that the disclosure of a limitation may be expressed, implicit or inherent.

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4. Claims 25-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bauer [4636961]**.

Bauer discloses a control circuit for a power tool which includes a data input device for entering information concerning the kind of material to be treated and other information relevant to the operation of the tool. The selected binary coded address word is applied to addressing inputs of a read only memory storing control words for a controlling device for a motor of the tool. Part of the bits of a control word outputted from the ROM are applied to a display device which displays the desired or actual rotary speeds of the tool and/or other data selected by the input device. The input device generates binary output signals which are employed as addresses for the storage device which is preferably in the form of a ROM or PROM and the other part of the output signals from the storage device which are fed to the control device of the motor of the tool, corresponds to the selected input data. As a result, the optimum rotary speed of the electric motor of the tool is adjusted. At the same time, the first mentioned part of the output signal from the storage device serves for displaying the selected material, rotary speed and the like. Bauer specifically disclosed that the correlation of rotary speed value and of the control signal for the limiting of the rotary speed is programmed in the ROM or a programmable read only memory (PROM), and that PROM has the advantage that it can be programmed by the user and easily reprogrammed. Bauer does not disclose "use profile information" specifically, however it would have been obvious to one of ordinary skill in the art that it is an inherent function of Bauer's apparatus to provide use profile information since it discloses information relevant to the operation of the tool, and MPEP 2100 states that the disclosure of a limitation may be expressed, implicit or inherent.

With regard to claim 30: the stored information comprising length of use type data, absent any criticality, is considered to be nothing more than a choice of engineering skill, because neither non-obvious nor unexpected results, i.e., results which are different in kind and not in degree from the

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results of the prior art, will be obtained as long as an operator will be able to optimize the parameters of the tool. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include the length of use type data to the data that an operator can program, and store the instructions for a tool, as disclosed by Wagner, in order to be able to carry out more tasks tracked by the computer, and improve proactive maintenance.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CAR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related apparatus: **Faulk [5945806]** discloses a smart battery module that includes a microcontroller, which powers a power tool (column 2, line 59).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tidbits whose telephone number is (703) 308-7305. If unavailable, contact the Supervisory Patent Examiner Robert Nappi whose telephone number is (703) 308-3370.

9. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications **only** may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

PFT

June 28, 2002


ROBERT E. NAPPI
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